

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A cooler for cooling both sides of one or more semiconductor devices, the cooler comprising: which comprises:
 - a plurality of flat cooling tubes ~~which have one or more cooling channels to allow a coolant to flow through, contact top and bottom surfaces of said semiconductor devices and are~~ each disposed at each of both sides of each of said semiconductor devices to form a stack in which the semiconductor devices and the flat cooling tubes are stacked alternately on one another in a stacking direction, each flat cooling tube having both end portions located in a direction perpendicular to the stacking direction when the stack is formed;
 - an inlet header ~~which supplies said coolant to the opening ends of said cooling tubes~~ having a cooling channel through which a coolant is supplied and passed for cooling the semiconductor devices of the stack;
 - an outlet header ~~which collects said coolant from the other opening ends of said flat cooling tubes~~ having a further cooling channel through which the coolant is collected; and
 - a pressing mechanism ~~for pressing a~~ generating a pressing force to press the stack of said semiconductor devices and said flat cooling tubes,
- wherein ~~said header is deformed by the pressing force of said pressing mechanism, thereby absorbing a dimensional tolerance, in the stacking direction, between a total length of the pressed stack and total length of the header portion~~ each of the inlet and outlet headers includes an end portion extended from each of both ends of each flat cooling tube in the direction perpendicular to the stacking direction, the end portion being equipped

with a diaphragm portion deformed in the stacking direction by the pressing force generated by said pressing mechanism.

2. (Currently Amended) The cooler according to claim 1, wherein ~~said flat cooling tubes closely contacts~~ each of said flat cooling tubes has flat cooling surfaces each closely contacting with each of the sides of said semiconductor devices under said pressing force.

3. (Currently Amended) The cooler according to claim 1, wherein: ~~said headers consist of:~~

~~_____ end portions of the cooling tubes which are connected to said cooling channels and have two head holes on both sides opening to the stacking direction; and~~

each of the end portions of each flat cooling tube has an opening composing one of the cooling channels and connecting members each of which is placed between connecting two adjacent end portions and includes including, as the diaphragm portion, a compressible portion which compresses in the stacking direction under the pressing force.

4. (Canceled)

5. (Currently Amended) ~~The cooler according to claim 1, wherein each of said inlet header and said outlet header comprises:~~ A cooler for cooling both sides of one or more semiconductor devices, the cooler comprising:

_____ a plurality of flat cooling tubes each disposed at each of both sides of each of said semiconductor devices to form a stack in which the semiconductor devices and the flat cooling tubes are stacked alternately on one another in a stacking direction, each flat cooling tube having both end portions located in a direction perpendicular to the stacking direction when the stack is formed;

_____ an inlet header having a cooling channel through which a coolant is supplied and passed for cooling the semiconductor devices of the stack;

an outlet header having a further cooling channel through which the coolant is collected; and
a pressing mechanism generating a pressing force to press the stack of said semiconductor devices and said flat cooling tubes,
wherein each of the inlet and outlet headers includes
an end portion extended from each of both ends of each flat cooling tube in the direction perpendicular to the stacking direction,

the end portion having an opening portion in each flat cooling tube which is opened along the stacking direction and is connected in a liquid tight manner with an adjacent flat cooling tube; and a diaphragm portion which is formed around the opening portion and is deformable under said pressing force along the stacking direction,

wherein an end of the opening portion in a direction perpendicular to the stacking direction is connected in a liquid tight manner with another end of another opening portion of an adjacent flat cooling tube.

6. (Original) The cooler according to claim 5, wherein said flat cooling tube is made of two press-formed metal plates including a cup-shaped portion brazed face to face to form a tube.

7. (Original) The cooler according to claim 5, wherein said flat cooling tube is made of two press-formed metal plates of the same shape which are brazed face to face to form a tube.

8. (Currently Amended) The cooler according to claim 1, wherein each of said flat cooling ~~tube~~ tubes comprises a spacer member inside said ~~coolant~~ cooling channel for supporting the pressing force and suppressing deformation thereof along the stacking direction.

9. (Currently Amended) The cooler according to claim 1, wherein said pressing mechanism comprises:

a pair of holding plates contacting ~~the~~ outermost sides of said stack in the stacking direction;

through bolts which pass through said holding plates; and

nuts fastened to said through bolts.